FlyBy Math™ Alignment
Learning Results - Mathematics – July 1997

B. COMPUTATION

Students will understand and demonstrate computation skills. Students will be able to:

1. Use various techniques to approximate solutions, determine the reasonableness of answers, and justify the results.	***FlyBy Math*™ Activities** --Explain and justify solutions regarding the motion of two airplanes using the results of plotting points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system. --Predict outcomes and explain results of mathematical models and experiments.

C. DATA ANALYSIS AND STATISTICS

Students will understand and apply concepts of data analysis. Students will be able to:

2. Predict and draw conclusions from charts, tables, and graphs that summarize data from practical situations.	***FlyBy Math*™ Activities** --Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes. --Use tables, bar graphs, line graphs, equations, and a Cartesian coordinate system to draw conclusions.

F. MEASUREMENT

Students will understand and demonstrate measurement skills. Students will be able to:

1. Use measurement tools and units appropriately and recognize limitations in the precision of the measurement tools.	***FlyBy Math*™ Activities** --Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.

G. PATTERNS, RELATIONS, FUNCTIONS

Students will understand that mathematics is the science of patterns, relationships, and functions. Students will be able to:

1. Create a graph to represent a real-life situation and draw inferences from it.	***FlyBy Math*™ Activities** --Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system. --Use tables, bar graphs, line graphs, equations, and a Cartesian coordinate system to draw conclusions.

2. Translate and solve a real-life problem using symbolic language.	--Use tables, graphs, and equations to solve aircraft conflict problems.
3. Model phenomena using a variety of functions (linear, quadratic, exponential, trigonometric, etc.).	--Represent distance, speed, and time relationships for constant speed cases using linear equations and a Cartesian coordinate system.

H. ALGEBRA CONCEPTS	
Students will understand and apply algebraic concepts. Students will be able to:	
1. Use tables, graphs, and spreadsheets to interpret expressions, equations, and inequalities.	***FlyBy Math™* Activities** --Use tables, graphs, and equations to solve aircraft conflict problems. --Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.
4. Analyze and explain situations using symbolic representations.	--Explain and justify solutions regarding the motion of two airplanes using the results of plotting points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system.